

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-18 (canceled).

19. (New) A sensor for measuring the viscosity of a liquid, comprising:

at least one piezoelectric component configured as a resonator;

at least one first starting electrode situated on a sensitive surface of the sensor;

at least one second starting electrode; and

at least one heating electrode provided for heating the liquid to be measured.

20. (New) The sensor as recited in Claim 19, wherein the at least one heating electrode is situated on or next to the sensitive surface of the sensor.

21. (New) The sensor as recited in Claim 20, wherein the at least one heating electrode is configured in one piece with the at least one first starting electrode.

22. (New) The sensor as recited in Claim 21, wherein the at least one heating electrode spans a surface area of the sensor having a central area, and wherein the central area includes a center region, and wherein the center region includes a center point, and wherein the surface area of the sensor has an approximately uniform temperature distribution in an operating temperature range.

23. (New) The sensor as recited in Claim 22, wherein the at least one heating electrode has a meandering shape.

24. (New) The sensor as recited in Claim 22, wherein a resistance per unit of length of the at least one heating electrode varies for at least two areas of the at least one heating electrode.

25. (New) The sensor as recited in Claim 22, wherein the at least one heating electrode has at least two areas of different cross sections.

26. (New) The sensor as recited in Claim 24, wherein the resistance per unit of length of the at least one heating electrode varies as a function of distance from one of the central area, the center region, and the center point.

27. (New) The sensor as recited in Claim 24, wherein the resistance per unit of length of the at least one heating electrode increases with distance from one of the central area, the center region, and the center point, toward an edge of the surface area of the sensor.

28. (New) The sensor as recited in Claim 22, further comprising:

a temperature measuring sensor.

29. (New) The sensor as recited in Claim 28, wherein the at least one heating electrode is incorporated in the temperature measuring sensor.

30. (New) The sensor as recited in Claim 22, wherein at least one of the at least one first starting electrode, the at

least one second starting electrode, and the at least one heating electrode is coated with an insulation layer.

31. (New) A method for measuring the viscosity of a liquid, comprising:

contacting at least one sensitive surface of a sensor with the liquid to be measured;

heating the liquid by a heating electrode in the area of the sensitive surface;

inducing the sensor to oscillate by applying an alternating voltage to the sensor; and

ascertaining a viscosity value of the liquid from values of electrical parameters measured by the sensor.

32. (New) The method as recited in Claim 31, further comprising:

measuring the temperature of the liquid.

33. (New) The method as recited in Claim 32, wherein, upon reaching a predefined temperature, the heating of the liquid is interrupted, the electrical parameters are measured, and the viscosity value of the liquid is ascertained.

34. (New) The method as recited in Claim 33, wherein the viscosity value of the liquid is ascertained for a plurality of predefined temperatures.

35. (New) The method as recited in Claim 34, wherein a curve of the liquid's viscosity plotted against the temperature is generated based on the viscosity values of the liquid ascertained at the plurality of predefined temperatures.